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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/700,916

11/04/2003

William J. Begley

86722AEK

8889

7590

11/23/2004

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EXAMINER

GARRETT, DAWN L

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,916

Applicant(s)

BEGLEY ET AL.

Examiner

Dawn Garrett

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11-4-2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Specification

1. It is suggested the status of all related applications which are referred to in the specification be updated by amendment prior to allowance of the present application. Related applications are referred to on pages 1 and 60 of the specification.

Claim Objections

2. Claims 20, 21, 24, 25, and 29 are objected to because of the following informalities:
 - a. In claim 20, it is suggested “the group consisting of” be inserted before “trifluoromethyl”.
 - b. In claim 21, it is suggested “the group consisting of” be inserted before “trifluoromethyl”.
 - c. In claim 25, it is suggested “the device containing no” be changed to “a device containing no”.
 - d. It is suggested the word “substituted” be inserted after “substituted or not” in part c) of claim 29.
 - e. Claim 24 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form. Since claim 1, upon which claim 24 ultimately depends, already sets forth a limitation stating the dopant produces orange-red light, it is not seen how claim 24 further limits claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9, 14, 25 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 9 depends from claim 1, which defines the substituents of the phenyl rings on the 5 and 11 positions of formula (I) as comprising “branched alkyl or non-aromatic carbocyclic groups”. Claim 9 recites W may be a non-aromatic heterocyclic group, which is neither a branched alkyl or non-aromatic carbocyclic group. Accordingly, the claim 9 dopant falls outside the scope of claim 1, which renders claim 9 indefinite.
6. Claim 9 depends from claim 1, which defines the formula (I) compound as requiring the phenyl rings at the 6 and 12 positions to be substituted. Claim 9 sets forth variable “n” as possibly zero, which means there is no substituent on the phenyl rings at the 6 and 12 positions. Accordingly, claim 9 falls outside the scope of claim 1, which renders claim 9 indefinite.
7. Claim 25 is drawn to a limitation comparing the device comprising the rubrene derivative of formula (I) with a device that does not contain rubrene. This claim is confusing, because the device as claimed also does not expressly comprise “rubrene”. The claimed device comprises a derivative of rubrene according to claim 1. Clarification and/or correction are required.
8. In claim 28, compound Inv-8 is outside the scope of the claim 1 formula (I), because the phenyl rings at the 6 and 12 positions are not substituted as required by claim 1. Accordingly, claim 28 falls outside the scope of claim 1, which renders claim 28 indefinite.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by “A New Yellow Fluorescent Dopant For High-Efficiency OLEDs”, 11th International Workshop On Inorganic And Organic Electroluminescence & 2002 International Conference On the Science And Technology Of Emissive Displays And Lighting, Sept. 2002, Session 4, EI2002 Ghent, Ghent University, Ghent, Belgium by Wu et al. (cited by Applicant). Wu et al. disclose a compound, TBRb, (see Figure 1) as a dopant in an Alq host in a layer of an electroluminescent device. The compound TBRb anticipates the Formula (I) compound of claim 29 wherein the phenyl rings in the 6 and 12 positions are not substituted. Because the TBRb compound anticipates the luminescent compound set forth in the claims, the wavelength properties recited in claims 29 and 30 are deemed to be inherent to the TBRb compound recited by Wu et al.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-8, 12-17, 21-23, 27, 31, 32, and 36-38 of copending Application No. 10/700,894. Although the conflicting claims are not identical, they are not patentably distinct from each other because application '894 discloses specific rubrene derivatives Inv-15 to Inv-21 for a light emitting layer that read upon the formula (I) derivatives of the present application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

13. Claims 1-28 and 31-33 contain allowable subject matter. Formula (I) (as set forth in claim 1) as a dopant in a light emitting layer of an electroluminescent device is considered to be allowable subject matter. The prior art fails to teach or to render obvious rubrene derivatives according to formula (I) comprising the very specific substituents as claimed used as a dopant in the light emitting layer of an electroluminescent device.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dawn Garrett
Primary Examiner
Art Unit 1774

D.G.
November 18, 2004